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NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 MAY 01 New CAS web site launched  
NEWS 3 MAY 08 CA/CAPLUS Indian patent publication number format defined  
NEWS 4 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display  
fields  
NEWS 5 MAY 21 BIOSIS reloaded and enhanced with archival data  
NEWS 6 MAY 21 TOXCENTER enhanced with BIOSIS reload  
NEWS 7 MAY 21 CA/CAPLUS enhanced with additional kind codes for German  
patents  
NEWS 8 MAY 22 CA/CAPLUS enhanced with IPC reclassification in Japanese  
patents  
NEWS 9 JUN 27 CA/CAPLUS enhanced with pre-1967 CAS Registry Numbers  
NEWS 10 JUN 29 STN Viewer now available  
NEWS 11 JUN 29 STN Express, Version 8.2, now available  
NEWS 12 JUL 02 LEMBASE coverage updated  
NEWS 13 JUL 02 LMEADLINE coverage updated  
NEWS 14 JUL 02 SCISEARCH enhanced with complete author names  
NEWS 15 JUL 02 CHEMCATS accession numbers revised  
NEWS 16 JUL 02 CA/CAPLUS enhanced with utility model patents from China  
NEWS 17 JUL 16 CAPLUS enhanced with French and German abstracts  
NEWS 18 JUL 18 CA/CAPLUS patent coverage enhanced  
NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification  
NEWS 20 JUL 30 USGENE now available on STN  
NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags  
NEWS 22 AUG 06 BEILSTEIN updated with new compounds  
NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition  
NEWS 24 AUG 13 CA/CAPLUS enhanced with additional kind codes for granted  
patents  
NEWS 25 AUG 20 CA/CAPLUS enhanced with CAS indexing in pre-1907 records

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that  
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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 17:38:08 ON 20 AUG 2007

=> file biosis, medline,  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'BIOSIS' ENTERED AT 17:38:42 ON 20 AUG 2007

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FILE 'MEDLINE' ENTERED AT 17:38:42 ON 20 AUG 2007

=> s synthetic gene

L1 1676 SYNTHETIC GENE

=> s l1 and (encoding polypeptide segment)

L2 0 L1 AND (ENCODING POLYPEPTIDE SEGMENT)

=> e santi/au

E1	3	SANTHYA K G/AU
E2	3	SANTHYADKA GANESHA/AU
E3	0 -->	SANTI/AU
E4	59	SANTI A/AU
E5	48	SANTI A L/AU
E6	2	SANTI A M/AU
E7	1	SANTI A N/AU
E8	1	SANTI A NOELLE NOELLE/AU
E9	2	SANTI ALESSANDRO/AU
E10	1	SANTI ANA E J D/AU
E11	7	SANTI ANDREA/AU
E12	2	SANTI ANDREA N/AU

=> s l1 and (PKS)

L3 4 L1 AND (PKS)

=> d l3 ti abs ibib tot

L3 ANSWER 1 OF 4 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
TI Redesign, synthesis and functional expression of the 6-deoxyerythronolide  
B polyketide synthase gene cluster.

AB A generic design of Type I polyketide synthase genes has been reported in  
which modules, and domains within modules, are flanked by sets of unique  
restriction sites that are repeated in every module [1]. Using the  
universal design, we synthesized the six-module DEBS gene cluster  
optimized for codon usage in *E. coli*, and cloned the three open reading  
frames into three compatible expression vectors. With one correctable  
exception, the amino acid substitutions required for restriction site  
placements were compatible with polyketide production. When expressed in  
*E. coli* the codon-optimized synthetic gene cluster  
produced significantly more protein than did the wild-type sequence.  
Indeed, for optimal polyketide production, PKS expression had to  
be down-regulated by promoter attenuation to achieve balance with  
expression of the accessory proteins needed to support polyketide  
biosynthesis.

ACCESSION NUMBER: 2006:265450 BIOSIS

DOCUMENT NUMBER: PREV200600266462

TITLE: Redesign, synthesis and functional expression of the  
6-deoxyerythronolide B polyketide synthase gene cluster.

AUTHOR(S): Menzella, Hugo G.; Reisinger, Sarah J.; Welch, Mark;  
Kealey, James T.; Kennedy, Jonathan; Reid, Ralph; Tran,  
Chan Q.; Santi, Daniel V. [Reprint Author]

CORPORATE SOURCE: Kosan Biosci Inc, 3832 Bay Ctr Pl, Hayward, CA 94545 USA  
santi@kosan.com

SOURCE: Journal of Industrial Microbiology & Biotechnology, (JAN 2006) Vol. 33, No. 1, pp. 22-28.  
ISSN: 1367-5435.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 10 May 2006

Last Updated on STN: 10 May 2006

L3 ANSWER 2 OF 4 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
TI Approaches to stabilization of inter-domain recombination in polyketide synthase gene expression plasmids.

AB Regions of extremely high sequence identity are recurrent in modular polyketide synthase (PKS) genes. Such sequences are potentially detrimental to the stability of PKS expression plasmids used in the combinatorial biosynthesis of polyketide metabolites. We present two different solutions for circumventing intraplasmid recombination within the megalomicin PKS genes in *Streptomyces coelicolor*. In one example, a synthetic gene was used in which the codon usage was reengineered without affecting the primary amino acid sequence. The other approach utilized a heterologous subunit complementation strategy to replace one of the problematic regions. Both methods resulted in PKS complexes capable of 6-deoxyerythronolide B analogue biosynthesis in *S. coelicolor* CH999, permitting reproducible scale-up to at least 5-l stirred-tank fermentation and a comparison of diketide precursor incorporation efficiencies between the erythromycin and megalomicin PKSs.

ACCESSION NUMBER: 2003:322319 BIOSIS

DOCUMENT NUMBER: PREV200300322319

TITLE: Approaches to stabilization of inter-domain recombination in polyketide synthase gene expression plasmids.

AUTHOR(S): Hu, Z.; Desai, R. P.; Volchegursky, Y.; Leaf, T.; Woo, E.; Licari, P.; Santi, D. V.; Hutchinson, C. R.; McDaniel, R. [Reprint Author]

CORPORATE SOURCE: Kosan Biosciences Inc., 3832 Bay Center Place, Hayward, CA, 94545, USA  
mcdaniel@kosan.com

SOURCE: Journal of Industrial Microbiology & Biotechnology, (March 2003) Vol. 30, No. 3, pp. 161-167. print.  
ISSN: 1367-5435.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 9 Jul 2003

Last Updated on STN: 9 Jul 2003

L3 ANSWER 3 OF 4 MEDLINE on STN

TI Redesign, synthesis and functional expression of the 6-deoxyerythronolide B polyketide synthase gene cluster.

AB A generic design of Type I polyketide synthase genes has been reported in which modules, and domains within modules, are flanked by sets of unique restriction sites that are repeated in every module [1]. Using the universal design, we synthesized the six-module DEBS gene cluster optimized for codon usage in *E. coli*, and cloned the three open reading frames into three compatible expression vectors. With one correctable exception, the amino acid substitutions required for restriction site placements were compatible with polyketide production. When expressed in *E. coli* the codon-optimized synthetic gene cluster produced significantly more protein than did the wild-type sequence. Indeed, for optimal polyketide production, PKS expression had to be down-regulated by promoter attenuation to achieve balance with expression of the accessory proteins needed to support polyketide biosynthesis.

ACCESSION NUMBER: 2006003169 MEDLINE

DOCUMENT NUMBER: PubMed ID: 16187094

TITLE: Redesign, synthesis and functional expression of the

6-deoxyerythronolide B polyketide synthase gene cluster.

AUTHOR: Menzella Hugo G; Reisinger Sarah J; Welch Mark; Kealey James T; Kennedy Jonathan; Reid Ralph; Tran Chau Q; Santi Daniel V

CORPORATE SOURCE: Kosan Biosciences, Inc., 3832 Bay Center Place, Hayward, CA, 94545, USA.. santi@kosan.com

SOURCE: Journal of industrial microbiology & biotechnology, (2006 Jan) Vol. 33, No. 1, pp. 22-8. Electronic Publication: 2005-09-27.  
Journal code: 9705544. ISSN: 1367-5435.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200611

ENTRY DATE: Entered STN: 4 Jan 2006  
Last Updated on STN: 2 Nov 2006  
Entered Medline: 1 Nov 2006

L3 ANSWER 4 OF 4 MEDLINE on STN

TI Approaches to stabilization of inter-domain recombination in polyketide synthase gene expression plasmids.

AB Regions of extremely high sequence identity are recurrent in modular polyketide synthase (PKS) genes. Such sequences are potentially detrimental to the stability of PKS expression plasmids used in the combinatorial biosynthesis of polyketide metabolites. We present two different solutions for circumventing intra-plasmid recombination within the megalomicin PKS genes in *Streptomyces coelicolor*. In one example, a synthetic gene was used in which the codon usage was reengineered without affecting the primary amino acid sequence. The other approach utilized a heterologous subunit complementation strategy to replace one of the problematic regions. Both methods resulted in PKS complexes capable of 6-deoxyerythronolide B analogue biosynthesis in *S. coelicolor* CH999, permitting reproducible scale-up to at least 5-l stirred-tank fermentation and a comparison of diketide precursor incorporation efficiencies between the erythromycin and megalomicin PKSs.

ACCESSION NUMBER: 2003195087 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12715253

TITLE: Approaches to stabilization of inter-domain recombination in polyketide synthase gene expression plasmids.

AUTHOR: Hu Z; Desai R P; Volchegursky Y; Leaf T; Woo E; Licari P; Santi D V; Hutchinson C R; McDaniel R

CORPORATE SOURCE: Kosan Biosciences Inc., 3832 Bay Center Place, Hayward, CA 94545, USA.

SOURCE: Journal of industrial microbiology & biotechnology, (2003 Mar) Vol. 30, No. 3, pp. 161-7. Electronic Publication: 2003-03-01.  
Journal code: 9705544. ISSN: 1367-5435.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200309

ENTRY DATE: Entered STN: 26 Apr 2003  
Last Updated on STN: 18 Sep 2003  
Entered Medline: 17 Sep 2003